DETAILED ACTION

1. Claims 1, 6-7, 11 and 33 are examining.

2. Claims 2-5, 8-10, 12-32 and 34-75 are withdrawn from consideration.

Election/Restrictions

3. Applicant's election without traverse of Species Ia, claims 1, 6-7, 11 and 33 in the reply filed on 12/06/2010 on phone is acknowledged.

Information Disclosure Statement

4. The information disclosure statement filed 01/14/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the IDS filed 01/14/2004 is duplicated of the IDS filed 06/23/2004. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed

150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because the abstract is written more than 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 6-7, 11 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the limitations “the apparatus setting" in lines 5-6, “the data for generation of probability" in line 8-9, “the basis of random numbers" in lines 7-8, and “data (n)" in line 13 lack of an antecedence basis. Further, it is unclear from the claim as what is the structure of the apparatus since the apparatus only cite a single step that characterizes the claim. The claim also lacks of structurally in order to determine as exactly what is the claimed invention as the body of the claim merely cites using data (n) to generate probability without disclosing what component using the data and how the component generates the probability. Other claims have very similar rejection/

Re claim 6, the limitations "the above data" in line 8-9 lacks of an antecedence basis since it is unclear as exactly what above data referring to as whether any data as previously mention?.

Re claim 7, the limitation "that random number data" in line 14 is unclear as it refers to the output of the random generator or the data in the process?.

Re claims 11 and 33, these claims are also rejected for being dependent on the rejected base claims 1.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1, 6-7, 11 and 33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 6-7, 11 and 33 cite an apparatus for generating probability signal in accordance with a mathematical algorithm. However, claims 1, 6-7, 11 and 33 merely disclose series mental steps/components for BBB without disclosing a practical/physical application. Further, the apparatus claims do not explicitly cite any physical hardware structure of the apparatus. Therefore, claims 1, 6-7, 11 and 33 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1, 6-7, 11 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradish et al. (U.S. 5,830,064) in view Mathis et al. (U.S. 5,380,008).

Re claim 1, Bradish et al. disclose in Figures 1-18 a probability generating apparatus comprising a random number generator consecutively generating random numbers (e.g. by the noise source and sampler 115 & 117 in Figure 2), the apparatus setting, as data for generation of probability, data generated using a trigger signal as a base point on the basis of the random numbers (e.g. abstract), the apparatus being characterized in that: using data (n) generated on the basis of a random number obtained using said trigger signal as a start point (e.g. output of the sampler 117 in Figure 2), the (n)-th random number from this random number is set as the data for generation of probability (e.g. abstract and claims).

Bradish et al. fail to disclose (1) a parallel random number generator; and (2) the generator offering uniformity; the apparatus comparing the data for generation of probability with range data to output a win/loss probability signal. However, the examiner takes an Office Notice that (1) the parallel random number generator is very well known and widely used in the art of the technology; (2) Mathis et al. disclose in Figures 1-9 the generator offering uniformity (e.g. col. 11 lines 21-32); the apparatus

comparing the data for generation of probability with range data to output a win/loss probability signal (e.g. Figure 6 and abstract with the comparisons).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add (1) a parallel random number generator; and (2) the generator offering uniformity; the apparatus comparing the data for generation of probability with range data to output a win/loss probability signal as generally seen in Mathis et al.'s invention into Bradish et al.'s invention because it would enable to optimally and controllably producing desired probability signal.

Re claim 6, Bradish et al. further disclose in Figures 1-18 characterized in that said data for generation of probability is obtained by inverting or non-inverting the above data for generation of probability in accordance with contents of the random number obtained using said trigger signal as the start point (e.g. Figure 4 by the invert even bits 118).

Re claim 7, Bradish et al. further disclose in Figures 1-18 characterized in that random number data is obtained by using data (x) generated on the basis of the random number obtained using the trigger signal as the start point (e.g. output of the noise source with sampler in Figure 2), to set the (x)-th random number from this random number as the random number data, and the random number data is outputted together with said probability signal (e.g. output of Figure 4).

Re claim 11, Bradish et al. further disclose in Figures 1-18 characterized in that a timing for generating the trigger signal is obtained by adding a preset variable offset value to a timing for generating said trigger signal (e.g. as the clock 113 in Figure 4).

Re claim 33, Bradish et al. fail to disclose in Figures 1-18 characterized in that said parallel random number generator comprises a 1-bit serial random number generator offering uniformity and consecutively generating random numbers and a register circuit which retains every predetermined bit length of serial random numbers generated and which outputs the serial random numbers in parallel. Bradish et al. fail to disclose characterized in that said parallel random number generator comprises a 1-bit serial random number generator offering uniformity and consecutively generating random numbers and a register circuit which retains every predetermined bit length of serial random numbers generated and which outputs the serial random numbers in parallel. However, the examiner takes an Office Notice that characterized in that said parallel random number generator comprises a 1-bit serial random number generator offering uniformity and consecutively generating random numbers and a register circuit which retains every predetermined bit length of serial random numbers generated and which outputs the serial random numbers in parallel is very well known and widely used in the art of the technology. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add characterized in that said parallel random number generator comprises a 1-bit serial random number generator offering uniformity and consecutively generating random numbers and a register circuit which retains every predetermined bit length of serial random numbers generated and which outputs the serial random numbers in parallel into Bradish et al.'s invention because it would enable to optimally and controllably producing desired probability signal.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent Application Publication No. 2002/0010015

b. U.S. Patent Application Publication No. 2003/0028567

c. U.S. Patent No. 6,798,883

d. U.S. Patent No. 4,573,681

e. U.S. Patent No. 6,360,183

f. U.S. Patent No. 5,511,784

g. U.S. Patent No. 5,380,008

h. U.S. Patent No. 5,830,064

i. U.S. Patent No. 4,206,920

Communication or earlier communications from the examiner should be directed to CHAT C. DO whose telephone number is (571)272-3721. The examiner can normally be reached on Tue-Fri 9:00AM to 7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chat C. Do/
Primary Examiner, Art Unit 2193

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